

Draft Drowning

6/26/2006

Definition: Drowning is the process of experiencing respiratory impairment from submersion/immersion in liquid. Drowning hospitalizations for 1989 through 2004 and deaths for 1990 through 1998 include all records with an ICD9 code of E830, E832, E910, E954, E964 or E984. For deaths between 1999 through 2004, the applicable ICD 10 codes include X71, X92, or Y21.

Washington State Goal Statement:

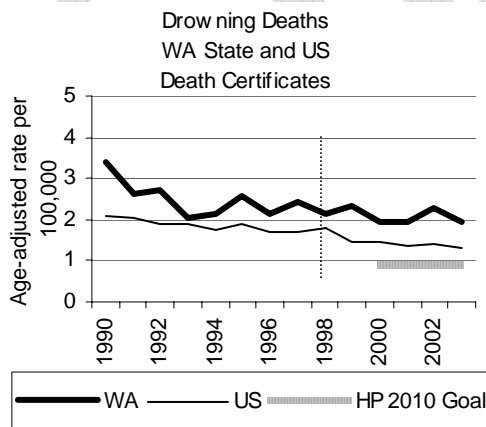
- Reduce drowning deaths by 7% from 1.9 per 100,000 in 2004 (118 deaths) to no more than 1.8 per 100,000 by 2010.

National Healthy People 2010 Objective:

- Reduce drowning deaths to 0.9 deaths per 100,000 population.

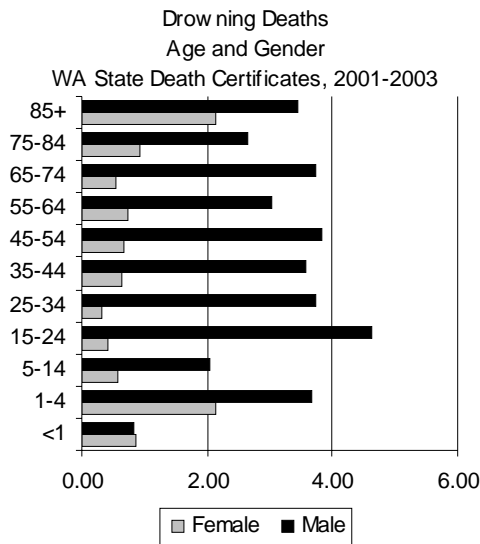
Statement of the Problem:

Swimming, boating, and other forms of water recreation are among the most popular pastimes of Washington residents. In some circumstances, these activities can prove dangerous, even fatal. In 2004, there were 97 unintentional drowning deaths to Washington residents of all ages and 16 drowning deaths to Washington children less than age 18. Drowning rates in Washington have steadily declined over the past 20 years. However, rates have historically been higher and are still higher than the national rate.



Populations at highest risk for drowning include:

- young children - younger than five years old;
- males, especially males 15 to 24;
- people who engage in water recreation activities while under the influence of alcohol;
- people with seizure disorders
- people who cannot swim; and
- people of racial and ethnic minorities.



Drowning is the second leading cause of unintentional injury death for children in Washington. Washington's childhood drowning rates are highest for youth ages 15-17 years followed by children ages 1-4 years while nationally children ages 1-4 years are at the greatest risk. The vast majority (95%) of drowning deaths to Washington children are unintentional.

Some of the survivors of drowning, especially children, are severely brain damaged due to lack of oxygen during submersion. Some survivors live in a persistent vegetative state. The lifetime medical costs due to drowning in the United States is about \$95 million dollars annually (using 2000 data)ⁱ.

Drowning can be prevented by closely supervising children in or around water, installing and maintaining protective barriers around swimming pools, both residential and non-residential public health regulated pools and spas, and wearing personal flotation devices (life vests).

Approximately 20% of Washington State drowning deaths occur related to boating. State law requires all boats to have enough life jackets on board, of appropriate sizes, for each person on board. Children 12 and under must wear life jackets while in a boat less than 19 feet while it is underway.

Recommended Strategies from the Injury Community Planning Group:

1. Increase life jacket use in boats and while swimming in non-lifeguarded open water areas such as lakes and rivers. Young children should wear life jackets whenever they are around deep water such as on a dock or beach. Children 12 years of age and under are required to wear US Coast Guard approved lifejackets on boats less than 19 feet. It is recommended that all passengers and operators wear lifejackets on boats, canoes, rafts that are less than 16 feet as this is where the majority of drowning occurs in small water craft.

2. Supervise children and adolescents in or near the water. Good supervision means constant watching, being within arms reach of children and having the capacity to affect a quick rescue. Lifeguards provide professional supervision for all ages. Lifeguarded areas are the safest settings for swimming.

3. Increase knowledge of Washington's water environments. Know the water. Washington State's lakes and rivers are cold enough, even in the summer, and currents strong enough to overwhelm the swimming abilities of even the strongest swimmers. Check water conditions, never dive or jump into unfamiliar or shallow water, and swim in designated areas only.

4. Encourage policies and regulations that emphasize water safety. Continue to implement drowning related policies and regulations including boating laws, State and Local Board of Health pool, spa, water park, and bathing beach regulations, and the most recent building codes outlining new barrier standards. Develop and pass a State Board of Health WAC to improve safety at public bathing beaches. Review and update these as necessary. Work to support the recommendations of the 2005 Drowning Prevention Report to the Director of OFM from Washington State Parks. Strengthen current boating under the influence regulations to decrease the use of alcohol while boating.

5. Raise community and personal awareness of child and teen drowning risk factors and prevention/safety strategies. Provide funding for effective public education and media campaigns. Focus strategies on high risk groups, especially children, teens and racial and ethnic minorities.

6. Support standardized drowning death investigation procedures and improve data collection efforts. Establish state and local systems to investigate and track cases.

Resources:

Washington State:

1. Washington State Drowning Prevention Network, www.drowning-prevention.org
2. *Child Death Review State Committee Recommendations on Child Drowning Prevention*, prepared by the Washington State Department of Health, June, 2004,

http://www.doh.wa.gov/cfh/CDR/cdr_data.htm.

3. *Drowning Prevention and Water Safety Information*, prepared by the Washington State Drowning Prevention Network and by Seattle Children's Hospital & Regional Medical Center, <http://www.seattlechildrens.org/dp/>.
4. *Childhood Drowning Deaths in Washington State*, May, 2003, prepared by the Washington State Department of Health for the Washington State Drowning Prevention Coalition, http://www.seattlechildrens.org/dp/pdf/drown_deaths_wa.pdf.
5. *Drowning Facts*, prepared by Seattle King & County Public Health, http://www.seattlechildrens.org/dp/pdf/drowning_fact_sheet.pdf.
6. *Loss Prevention Review Team, Drowning Prevention*, prepared by Washington State Parks and Recreation Commission, <http://www.ofm.wa.gov/rmd/lprt/parksfinalrpt.pdf>

National Resources:

1. National Center for Injury Prevention and Control. Fact sheet on drowning - <http://www.cdc.gov/ncipc/factsheets/drown.htm>
2. US Coast Guard – Boating Safety <http://www.uscgboating.org/>
3. Research Report - Pool and Spa Drowning: A National Study of Drain Entrapment and Pool Safety Measures <http://www.usa.safekids.org/water/documents/PoolSpaDrowning.pdf>
4. *Activities to Promote Water Safety Awareness*, developed by the Virginia Water Safety Coalition, www.watersafety.org.

ⁱ EA Finkelstein, PS Corso and TR Miller. Incidence and economic burden of injury in the United States. Oxford University Press, 2006.

Reducing Drowning Injury in Washington State

Because we have these resources...

...we are able to implement these strategies/activities

...and create these resources...

...so that we achieve these outcomes for our citizens.

